

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000907**Date Inspected:** 18-Nov-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 600**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sha Zhi, Haung Li**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** CalTrans mock up**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Dan Hernandez was present to observe the fitup, welding and related activities associated with the fabricating of Caltrans Mock-ups 89.00 meter and 114.00 meter for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Item Description	WBS	Dwg No.	Status
1 89M Strut Assembly			In Progress
Caltrans QA Inspector observed SMAW in progress of fill passes on plates P913-4 to SA24-4 and P913-3 to SA24-3. The weld joint is a Complete Joint Penetration (CJP) double bevel T-joint in the 1G position. The approved welder Dai Lu # 048659 was using approved welding procedure specification WPS-B-T-3211-TC-U5B. Caltrans QA Inspector observed current welding parameters at approximately 274 amps, 24 volts and 136 millimeters per minute (mm/min) travel speed. Preheat and interpass temperatures were verified during welding activities. The preheat temperature prior to the start of welding measures more than 110 Celsius (230 degree Fahrenheit) but less than 232 Celsius (450 degrees Fahrenheit) during maximum interpass temperature verification. SMAW welding consumable is verified and identified as classification E9018 H4R Excalibur 4mm diameter. An electrode oven was observed by Caltrans QA Inspector in use during the welding process. ZPMC Quality Control (QC) Certified Welding Inspector (CWI) Mr. Lu Jian Ping and Bureau Veritas Inspector Mr. Haung Li were observed monitoring welding activities at the workstation.			
2 114M Longitudinal Stiffener plate to Interior Splice Assembly			In Progress
Caltrans QA Inspector observed flux cored arc welding (FCAW) in progress of stiffener plate p920-9 to Interior Splice plate A67. The weld joints are Complete Joint Penetration (CJP), double bevel T-joints. The welders are observed welding filler passes in the 1G position using a chipping hammer and wire brushing during interpass weld cleaning. The approved welder is identified as Mr. Chang Chuan Cang # 053870. The welder was using welding procedure			

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specification WPS-B-T-2231-TC-U5-F. Caltrans QA observed ZPMC Quality Control (QC) Certified Welding Inspector (CWI) Mr. Lu Jian Ping and Bureau Veritas Inspector, Mr. Haung Li monitoring welding activities at the workstation. Caltrans QA measured current welding parameters at approximately 300 amps, 30.3 volts and 312 millimeters per minute (mm/min) travel speed. Preheat and interpass temperatures were verified during welding activities. The preheat temperature prior to the start of welding measures more than 110 Celsius (230 degree Fahrenheit) but less than 232 Celsius (450 degrees Fahrenheit) during maximum interpass temperature verification. FCAW welding consumable is verified and identified as Supercored 71H, classification E71T-1, diameter 1.4 mm (.055 inches).

Summary of Conversations:

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Hernandez,Dan	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
